10/691670

Refine Search

Your wildcard search against 10000 terms has yielded the results below.
Your result set for the last L# is incomplete.
The probable cause is use of unlimited truncation. Revise your search strategy to use limited truncation.

Search Results -

Terms	Documents
L20 and (tim$ near2 averag$)	1

Database:
US Pre-Grant Publication Full-Text Database
US Patents Full-Text Database
US OCR Full-Text Database
EPO Abstracts Database
JPO Abstracts Database
Derwent World Patents Index
IBM Technical Disclosure Bulletins

Search: L21

[Refine Search]

[Recall Text] [Clear] [Interrupt]

Search History

DATE: Wednesday, June 22, 2005   Printable Copy   Create Case

Set Name side by side	Query	Hit Count	Set Name result set
DB=USPT; THES=ASSIGNEE; PLUR=YES; OP=OR			
L21	L20 and (tim$ near2 averag$)	1	L21
L20	S589815.pn.	1	L20
L19	L8 and (tim$ near2 averag$)	0	L19
L18	L17 and (tim$ near2 averag$)	0	L18
L17	L16 not (l8 or l15)	3	L17
L16	L13 and 701/36,41.ccls.	3	L16
L15	L14 and (tim$ near2 averag$)	1	L15
L14	L13 and (steer$ near2 angle).clm.	19	L14
L13	L12 and (left$ with right$ with wheel$)	25	L13
L12	L11 and accelerat$ and (yaw near2 rate)	32	L12
L11	L10 and (ratio$ with (turn$ or rotat$) with angle)	131	L11

L10	L9 and (front$ with rear$)	882	L10
L9	L2 and @ad<=20021029	1545	L9
L8	L7 and (rotat$ with angl$).clm.	1	L8
L7	L6 and (steer$ near2 angle).clm.	7	L7
L6	L5 and (angl$ with turn$ with ratio)	9	L6
L5	L4 and @ad<=20021029	189	L5
L4	L3 and accelerat$ and (yaw near2 rate)	203	L4
L3	L2 and accelerat$ and (left$ near2 wheel) and (right near2 wheel)	368	L3
L2	((steer$ near2 angle) with sens$) and (rotat$ with angle)	1656	L2

DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; THES=ASSIGNEE; PLUR=YES;
OP=OR

L1	steer$ near2 angle	28190	L1

END OF SEARCH HISTORY

Create A Case

Select?	Database	Query	PluralOp	Thesaurus	Set Name
☑	PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD	steer$ near2 angle	YES	ORASSIGNEE	L1
☑	USPT	((steer$ near2 angle) with sens$) and (rotat$ with angle)	YES	ORASSIGNEE	L2
☑	USPT	L2 and accelerat$ and (left$ near2 wheel) and (right near2 wheel)	YES	ORASSIGNEE	L3
☑	USPT	L3 and accelerat$ and (yaw near2 rate)	YES	ORASSIGNEE	L4
☑	USPT	L4 and @ad<=20021029	YES	ORASSIGNEE	L5
☑	USPT	L5 and (angl$ with turn$ with ratio)	YES	ORASSIGNEE	L6
☑	USPT	L6 and (steer$ near2 angle).clm.	YES	ORASSIGNEE	L7
☑	USPT	L7 and (rotat$ with angl$).clm.	YES	ORASSIGNEE	L8
☑	USPT	L2 and @ad<=20021029	YES	ORASSIGNEE	L9
☑	USPT	L9 and (front$ with rear$)	YES	ORASSIGNEE	L10
☑	USPT	L10 and (ratio$ with (turn$ or rotat$) with angle)	YES	ORASSIGNEE	L11
☑	USPT	L11 and accelerat$ and (yaw near2 rate)	YES	ORASSIGNEE	L12
☑	USPT	L12 and (left$ with right$ with wheel$)	YES	ORASSIGNEE	L13
☑	USPT	L13 and (steer$ near2 angle).clm.	YES	ORASSIGNEE	L14
☑	USPT	L14 and (tim$ near2 averag$)	YES	ORASSIGNEE	L15
☑	USPT	L13 and 701/36,41.ccls.	YES	ORASSIGNEE	L16
☑	USPT	L16 not (l8 or l15)	YES	ORASSIGNEE	L17
☑	USPT	L17 and (tim$ near2 averag$)	YES	ORASSIGNEE	L18
☑	USPT	L8 and (tim$ near2 averag$)	YES	ORASSIGNEE	L19

| ☑ | USPT | 5589815.pn. | YES | ORASSIGNEE L20 |
| ☑ | USPT | L20 and (tim$ near2 averag$) | YES | ORASSIGNEE L21 |

Please enter the case name: 10691670

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Rules for naming Cases

- Case names can only contain alphanumeric characters including underscore (_).
- Any other special characters or punctuation characters will be automatically removed prior to saving the case.
- All white space characters will be replaced by an underscore.

☐ ▩ Generate Collection ▩ | Print |

    L16: Entry 1 of 3   File: USPT   Mar 16, 2004

US-PAT-NO: 6708088
DOCUMENT-IDENTIFIER: US 6708088 B2

TITLE: Vehicle behavior control apparatus

DATE-ISSUED: March 16, 2004

INVENTOR-INFORMATION:
NAME   CITY   STATE   ZIP CODE   COUNTRY
Matsuno; Koji   Tokyo   JP
Ichikawa; Katsufumi   Tokyo   JP
Kogure; Masaru   Tokyo   JP
Hiwatashi; Yutaka   Tokyo   JP
Ushijima; Takayuki   Tokyo   JP

ASSIGNEE-INFORMATION:
NAME   CITY   STATE ZIP CODE   COUNTRY   TYPE CODE
Fuji Jukogyo Kabushiki Kaisha Tokyo   JP   03

APPL-NO: 10/ 132017   [PALM]
DATE FILED: April 22, 2002

FOREIGN-APPL-PRIORITY-DATA:
COUNTRY   APPL-NO   APPL-DATE
JP   P.2001-126240   April 24, 2001

INT-CL: [07] G06 F 7/00

US-CL-ISSUED: 701/1; 701/41, 701/42, 701/74
US-CL-CURRENT: 701/1; 701/41, 701/42, 701/74

FIELD-OF-SEARCH: 701/1, 701/36, 701/37, 701/38, 701/41, 701/51, 701/70-74, 701/78-
80

PRIOR-ART-DISCLOSED:

                        U.S. PATENT DOCUMENTS

        ▩ Search Selected ▩ | ▩ Search ALL ▩ | ▩ Clear ▩

        PAT-NO   ISSUE-DATE   PATENTEE-NAME   US-CL
☐   5333058   July 1994   Shiraishi et al.   364/424.05
☐   5671143   September 1997   Graber   364/426.016

☐	5700073	December 1997	Hiwatashi et al.	303/146
☐	5742917	April 1998	Matsuno	701/69
☐	5869753	February 1999	Asanuma et al.	73/117.3
☐	6161905	December 2000	Hac et al.	303/146

FOREIGN PATENT DOCUMENTS

FOREIGN-PAT-NO	PUBN-DATE	COUNTRY	US-CL
19856792	June 1999	DE	
0943514	September 1999	EP	
05278489	October 1993	JP	
06072169	March 1994	JP	

ART-UNIT: 3661

PRIMARY-EXAMINER: Camby; Richard M.

ATTY-AGENT-FIRM: Darby & Darby

ABSTRACT:

A vehicle behavior control apparatus is divided into three major parts, sensors for detecting engine and vehicle operating conditions, a target yaw rate establishing section for establishing the rate and differential limiting apparatuses for selectively varying distribution ratios of driving force between front and rear wheels and/or between left and right wheels. The target yaw rate establishing section calculates a target yaw rate based on a vehicle mass, a mass distribution ratio between front and rear axles, front and rear axle mass, distances between front and rear axles and a center of gravity, a steering angle of a front wheel, and front and rear wheels equivalent cornering powers. A steady state yaw rate gain is separately calculated for left and right steering, respectively. A reference yaw rate is calculated by correcting a time constant of lag of yaw rate with respect to steering based on estimated road friction coefficient.

28 Claims, 10 Drawing figures

First Hit   Fwd Refs   Previous Doc   Next Doc   Go to Doc#

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L16: Entry 2 of 3   File: USPT   Mar 26, 1996

US-PAT-NO: 5502639
DOCUMENT-IDENTIFIER: US 5502639 A

TITLE: Controlling apparatus of steering angle of rear wheels of four-wheel
steering vehicle

DATE-ISSUED: March 26, 1996

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Fukunaga; Takashi	Osaka			JP
Segawa; Akiyoshi	Osaka			JP

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Matsushita Electric Industrial Co., Ltd.	Osaka			JP	03

APPL-NO: 08/ 392626   [PALM]
DATE FILED: February 22, 1995

PARENT-CASE:
This is a divisional of now abandoned application Ser. No. 08/119,642, filed Sep.
13, 1993, abandoned, which in turn is a divisional of application Ser. No.
07/743,225, filed Aug. 9, 1991, now U.S. Pat. No. 5,274,555.

FOREIGN-APPL-PRIORITY-DATA:

COUNTRY	APPL-NO	APPL-DATE
JP	2-212861	August 10, 1990
JP	2-409044	December 28, 1990
JP	3-69708	April 2, 1991

INT-CL: [06] B62 D 5/04

US-CL-ISSUED: 364/424.05; 180/79.1, 180/140, 180/142, 280/91
US-CL-CURRENT: 701/41; 180/412, 180/445

FIELD-OF-SEARCH: 364/424.05, 280/91, 180/65.1, 180/65.3, 180/79.1, 180/140-143

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

| Search Selected | | Search ALL | | Clear |

	PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
☐	4730839	March 1988	Miyoshi	280/91
☐	4767588	August 1988	Ito、	180/79.1
☐	4768602	September 1988	Inoue et al.	364/424.05
☐	4828061	May 1989	Kimbrough et al.	180/79.1
☐	4834205	May 1989	Mizuno et al.	180/79.1
☐	4836319	June 1989	Haseda et al.	180/142
☐	4878557	November 1989	Shibahata et al.	180/142
☐	4947327	August 1990	Kawagoe	180/141
☐	4961144	October 1990	Yabe et al.	364/424.05
☐	5001636	March 1991	Shiraishi et al.	364/424.05
☐	5001637	March 1991	Shiraishi et al.	364/424.05
☐	5018070	May 1991	Eguchi	180/79.1
☐	5019982	May 1991	Furukawa	364/424.05
☐	5064013	November 1991	Lenz	180/65.3
☐	5076381	December 1991	Daido et al.	180/79.1
☐	5097918	March 1992	Daido et al.	364/424.05
☐	5145022	September 1992	Kido	280/91
☐	5156229	October 1992	Yasui et al.	180/79.1
☐	5159553	October 1992	Karnopp et al.	180/79.1
☐	5267160	November 1993	Ito et al.	180/141
☐	5274576	December 1993	Williams	364/424.05
☐	5285390	February 1994	Haseda	364/424.05
☐	5313389	May 1994	Yasui	364/424.05
☐	5333058	July 1994	Shiraishi et al.	364/424.05

FOREIGN PATENT DOCUMENTS

FOREIGN-PAT-NO	PUBN-DATE	COUNTRY	US-CL
0233012	August 1987	EP	
0244232	November 1987	EP	
3911453	October 1989	DE	
61-241274	October 1986	JP	
61-295175	December 1986	JP	
63-41282	February 1988	JP	
63-192667	August 1988	JP	
1-306370	December 1989	JP	
3-28083	February 1991	JP	
WOA8806546	September 1988	WO	
WOA8911992	December 1989	WO	

OTHER PUBLICATIONS

Patent Abstracts Of Japan, vol. 13, No. 567 (M-908) 15 Dec. 1989 * JP-A-12 37 263
(Aisin Seiki Co,. Ltd.) 21 Sep. 1989 *abstract*.
Patent Abstracts Of Japan, vol. 15, No. 203 (M-1116) 24 May 1991 & JP-A-30 54 076
(Matsushita Electric Ind. Co., Ltd.) 8 Mar. 1991 *abstract*.
E. Samal "Grundriss der praktischen Regelungstechnik", 1980, R. Oldenbourgh Verlag,
Munchen 11th edition, part 5: Regelkreise mit stetigen Reglern, sections 5.6 and
5.7, pp. 292-307 *the whole document*.

ART-UNIT: 234

PRIMARY-EXAMINER: Chin; Gary

ATTY-AGENT-FIRM: Wenderoth, Lind & Ponack

ABSTRACT:

A steering angle of rear wheels of a four-wheel steering vehicle is controlled so
that a quick response of an electric motor mounted in the rear wheels is achieved
only when it is necessary, thereby avoiding wasteful consumption of power. In
addition, a yaw rate feedback system is kept stable. When unstable vibration of the
electric motor is detected, a gain to the yaw rate is adjusted.

3 Claims, 19 Drawing figures

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L16: Entry 3 of 3   File: USPT   Jan 19, 1988

US-PAT-NO: 4720790
DOCUMENT-IDENTIFIER: US 4720790 A

TITLE: Apparatus for controlling steer angle of rear wheels of vehicle

DATE-ISSUED: January 19, 1988

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Miki; Kazuo	Aichi			JP
Sumi; Kazumasa	Nagoya			JP
Fukui; Katsuhiko	Nagoya			JP
Hayashi; Yasutaka	Seto			JP
Ishiguro; Michio	Toyota			JP

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Kabushiki Kaisha Toyota Chuo Kenkyusho	Aichi			JP	03

APPL-NO: 06/ 734332   [PALM]
DATE FILED: May 15, 1985

FOREIGN-APPL-PRIORITY-DATA:

COUNTRY	APPL-NO	APPL-DATE
JP	59-102202	May 21, 1984
JP	59-163428	August 2, 1984

INT-CL: [04] B62D 5/06

US-CL-ISSUED: 364/424; 180/140, 180/142, 280/91
US-CL-CURRENT: 701/41; 180/415

FIELD-OF-SEARCH: 364/559, 364/424, 364/426, 180/140, 180/142, 180/143, 180/79.1, 280/91

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

Search Selected   Search ALL   Clear

PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL

	4418780	December 1983	Ito et al.	180/142
	4441572	April 1984	Ito et al.	180/140
	4522417	June 1985	Sano et al.	280/91
	4527654	July 1985	Shibahata et al.	180/140
	4552239	November 1985	Kanazawa et al.	180/140
	4566710	January 1986	Furukawa et al.	180/140 X
	4572316	February 1986	Kanazawa et al.	180/143
	4597462	July 1986	Sano et al.	180/140
	4598788	July 1986	Serizawa et al.	180/140

FOREIGN PATENT DOCUMENTS

FOREIGN-PAT-NO	PUBN-DATE	COUNTRY	US-CL
0150858	August 1985	EP	180/140
0165706	December 1985	EP	
0044568	March 1982	JP	

ART-UNIT: 234

PRIMARY-EXAMINER: Lall; Parshotam S.

ASSISTANT-EXAMINER: Black; Thomas G.

ATTY-AGENT-FIRM: Parkhurst & Oliff

ABSTRACT:

A rear-wheel steer-angle-controlling apparatus for vehicles having steerable front and rear-wheels, adapted for controlling the steer angle of rear wheels in response to the operation of the steering wheel for steering the front wheels. When the steering wheel is operated quickly, a rear wheel steer angle is formed in the counter direction to the direction of the front wheel steer angle, so that the response to the steering input for turning the vehicle is improved. Conversely, when the steering wheel is operated slowly, a rear wheel steer angle is formed in the same direction as the front wheel steer angle, thus enhancing the stability of the vehicle running straight. When the vehicle is running at a high speed, the rear wheel steer angle is formed always in the same direction as the front wheel steer angle regardless of the speed of operation of the steering wheel, so that the steering stability during high speed running is improved. When a yawing moment is generated due to a disturbance such as lateral wind, the rear-wheel_steer angle is automatically controlled in such a manner as to negate the yawing moment, thus compensating for the lateral displacement of the vehicle without requiring correcting steering operation by the driver.

35 Claims, 39 Drawing figures